

RF Active Compositions for Use in Adhesion, Bonding and Coating

Abstract

A susceptor composition that can bond two or more layers or substrates to one another and that can be used to coat or cut a substrate. The susceptor composition is activated in the presence of radio frequency (RF) energy. In one embodiment, the susceptor composition of the present invention comprises a susceptor and a carrier. The carrier and susceptor are blended with one another and form a mixture, preferably a uniform mixture. The susceptor is present in an amount effective to allow the susceptor composition to be heated by RF energy. In a preferred embodiment, the susceptor also functions as an adhesive. The susceptor is an ionic or polar compound and acts as either a charge-carrying or an oscillating/vibrating component of the susceptor composition. The susceptor generates thermal energy in the presence of an RF electromagnetic or electrical field (hereafter RF field).